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FILE 'HCAPLUS' ENTERED AT 16:36:52 ON 24 MAR 2004

L1 E LING LEONA E/AU  
 27 SEA ABB=ON ("LING LEONA"/AU OR "LING LEONA E"/AU OR "LING  
 LEONA EVA"/AU)  
 E SANICOLA NADEL MICHELE/AU  
 L2 32 SEA ABB=ON ("SANICOLA MICHELE"/AU OR "SANICOLA NADEL MICHELE"/  
 AU OR "SANICOLA NADEL MICHELLE"/AU OR "SANICOLA NADELE  
 MICHELE"/AU)  
 L3 1 SEA ABB=ON L1 AND L2  
 SELECT RN L3 1-1

FILE 'REGISTRY' ENTERED AT 16:37:54 ON 24 MAR 2004

L4 56 SEA ABB=ON (106096-93-9/BI OR 127464-60-2/BI OR 14265-44-2/BI  
 OR 186270-49-5/BI OR 194368-66-6/BI OR 383440-12-8/BI OR  
 383440-13-9/BI OR 383440-14-0/BI OR 383440-15-1/BI OR 383440-16  
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 9001-78-9/BI)  
 L5 0 SEA ABB=ON L3 AND L4

FILE 'HCAPLUS' ENTERED AT 16:38:11 ON 24 MAR 2004

L6 1 SEA ABB=ON L3 AND L4

FILE 'REGISTRY' ENTERED AT 16:40:07 ON 24 MAR 2004

L7 6287 SEA ABB=ON NR=5 AND NRS=4 AND N=3 AND S=1 AND CL=1  
 L8 419 SEA ABB=ON L7 AND (46.150.1 AND 46.150.18)/RID  
 L9 54 SEA ABB=ON THIONAPHTHALENE  
 L10 1 SEA ABB=ON THIONAPHTHALENE/CN  
 L11 STR  
 L12 50 SEA SSS SAM L11  
 L13 40 SEA ABB=ON L8 AND 333.246.11/RID  
 L14 SCREEN 1968  
 L15 9 SEA ABB=ON C31 H30 CL N3 O2 S/MF  
 L16 1 SEA ABB=ON 364590-54-5

FILE 'HCAPLUS' ENTERED AT 16:50:12 ON 24 MAR 2004

L17 4 SEA ABB=ON L16  
 L18 0 SEA ABB=ON L17 AND (?ANGIOGENESIS? OR ?NEOVASCUL?)  
 L19 4 SEA ABB=ON L17 AND ?HEDGEHOG?  
 L20 4 SEA ABB=ON L19 AND (?POLYPEPTID? OR ?AGONIST?)

FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT  
 16:54:43 ON 24 MAR 2004

L21 0 SEA ABB=ON L20

*Inventor  
 search-  
 attached*

*Requested compd. - see attached  
 display*

*4 hits from CAPLUS  
 for compd. plus best terms - cit's are attached*

*0 hits from other d.b.'s - may not have  
 Registry numbers available for  
 searching*

=> d 116

YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y)/N:y

L16 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN

RN 364590-54-5 REGISTRY

CN Benzo[b]thiophene-2-carboxamide, 3-chloro-N-[(4'-cyano-6-methoxy[1,1'-biphenyl]-3-yl)methyl]-N-[4-(methylamino)cyclohexyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Hh-Ag 1.2

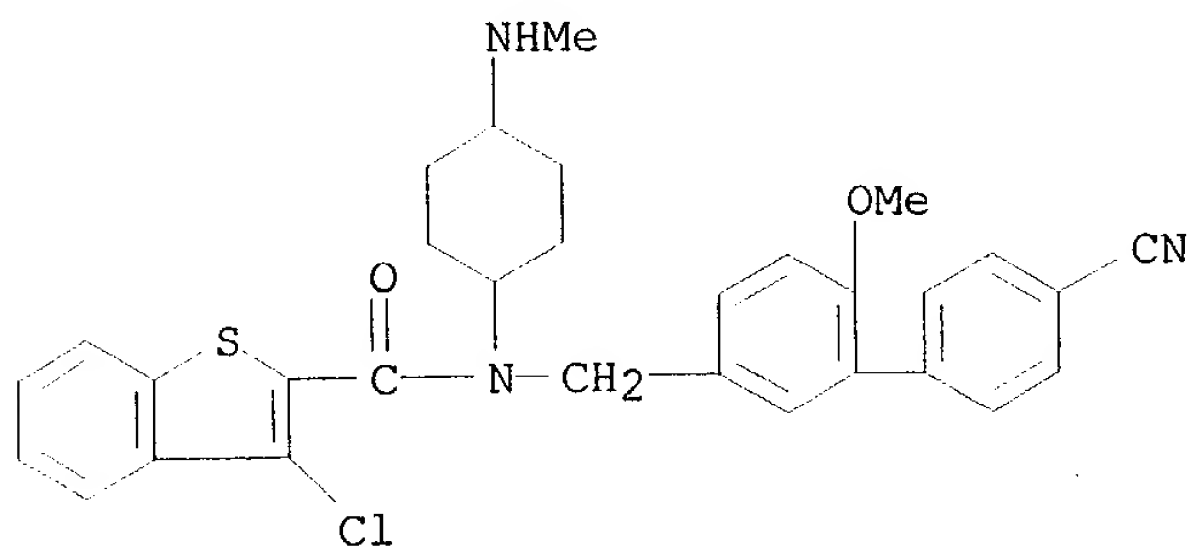
FS 3D CONCORD

MF C31 H30 Cl N3 O2 S

CI COM

SR CA

LC STN Files: CA, CAPLUS, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

ED Entered STN: 25 Oct 2001

=> d que stat 120

L16 1 SEA FILE=REGISTRY ABB=ON 364590-54-5  
L17 4 SEA FILE=HCAPLUS ABB=ON L16  
L19 4 SEA FILE=HCAPLUS ABB=ON L17 AND ?HEDGEHOG?  
L20 4 SEA FILE=HCAPLUS ABB=ON L19 AND (?POLYPEPTID? OR ?AGONIST?)

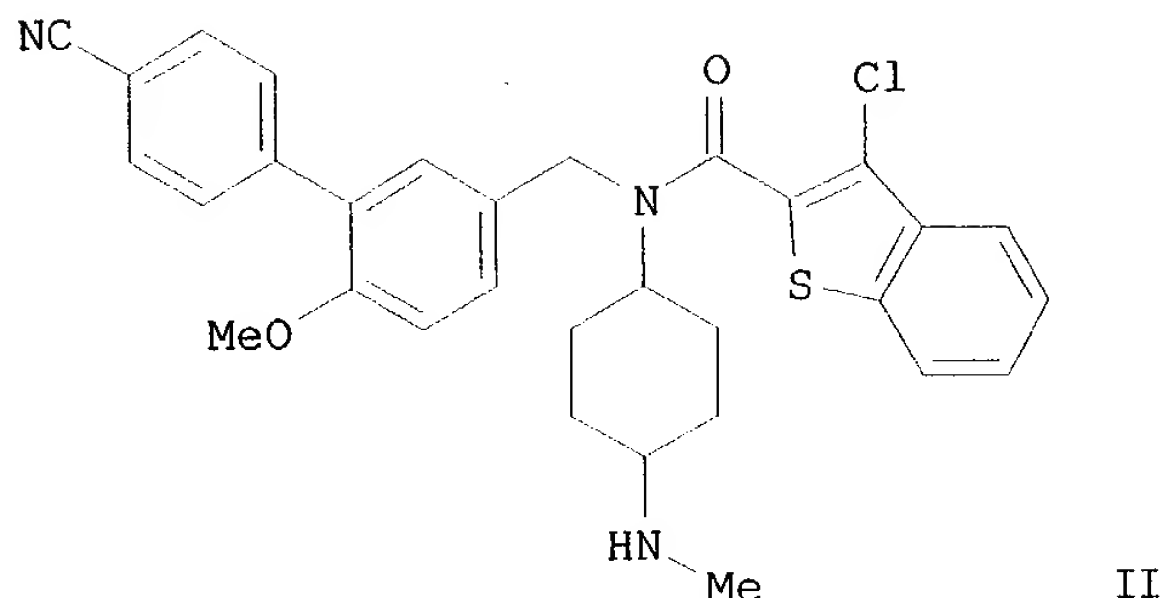
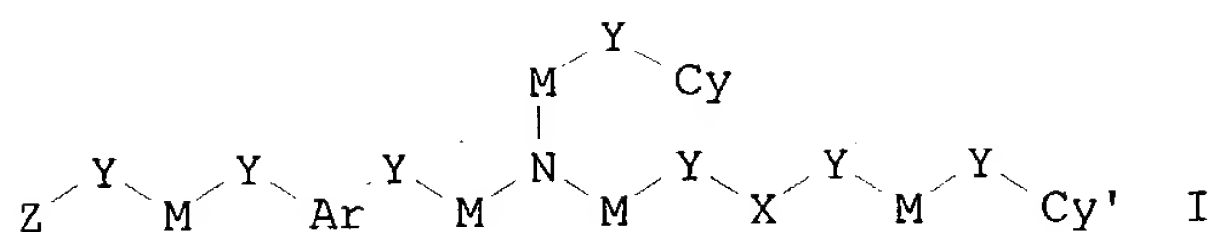
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L20 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2003:570651 HCAPLUS  
DOCUMENT NUMBER: 139:133461  
TITLE: Preparation of substituted benzothiophenes as  
regulators of cell proliferation  
INVENTOR(S): Baxter, Anthony David; Boyd, Edward Andrew;  
Frank-Kamenetsky, Maria; Guicherit, Oivin; Porter,  
Jeffery; Price, Stephen; Rubin, Lee; Stibbard, John  
Harry Alexander  
PATENT ASSIGNEE(S): Curis, Inc., USA  
SOURCE: U.S. Pat. Appl. Publ., 137 pp., Cont.-in-part of U.S.  
Ser. No. 964,276.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003139457	A1	20030724	US 2002-245844	20020917
US 6683108	B1	20040127	US 2000-724492	20001128
WO 2001074344	A2	20011011	WO 2001-US10296	20010330
WO 2001074344	A3	20020523		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 2002198236	A1	20021226	US 2001-964276	20010926
US 6683192	B2	20040127		

PRIORITY APPLN. INFO.:  
US 2000-193279P P 20000330  
US 2000-724492 A2 20001128  
WO 2001-US10296 A2 20010330  
US 2001-964276 A2 20010926  
US 2000-724955 A 20001128

OTHER SOURCE(S): MARPAT 139:133461  
GI



AB Title compds. I [Ar = (un)substituted (hetero)aryl; X = CO, CS, SO<sub>2</sub>, SO, etc.; Y = absent for each occurrence; Z = absent, (un)substituted aryl, carbocycle, heterocycle, heteroaryl, etc.; M = independently for each occurrence (un)substituted methylene, etc.; Cy = (un)substituted (hetero)aryl, heterocycle, cycloalkyl, polycyclic group; Cy' = 3-chlorobenzo[b]thiophen-2-yl, etc.] are prepared For instance, (4-aminocyclohexyl)carbamic acid tert-Bu ester (preparation given) is condensed with 3-(4-cyanophenyl)-4-methoxybenzaldehyde ((MeO)<sub>3</sub>CH, NaBH(OAc)<sub>3</sub>) and the resulting amine acylated with 3-chlorobenzo[b]thiophene-2-carbonyl chloride and finally deprotected to give II as the HCl salt. Example compds. were shown to be **hedgehog agonists**. I are used to modulate proliferation or differentiation in a cell or tissue.

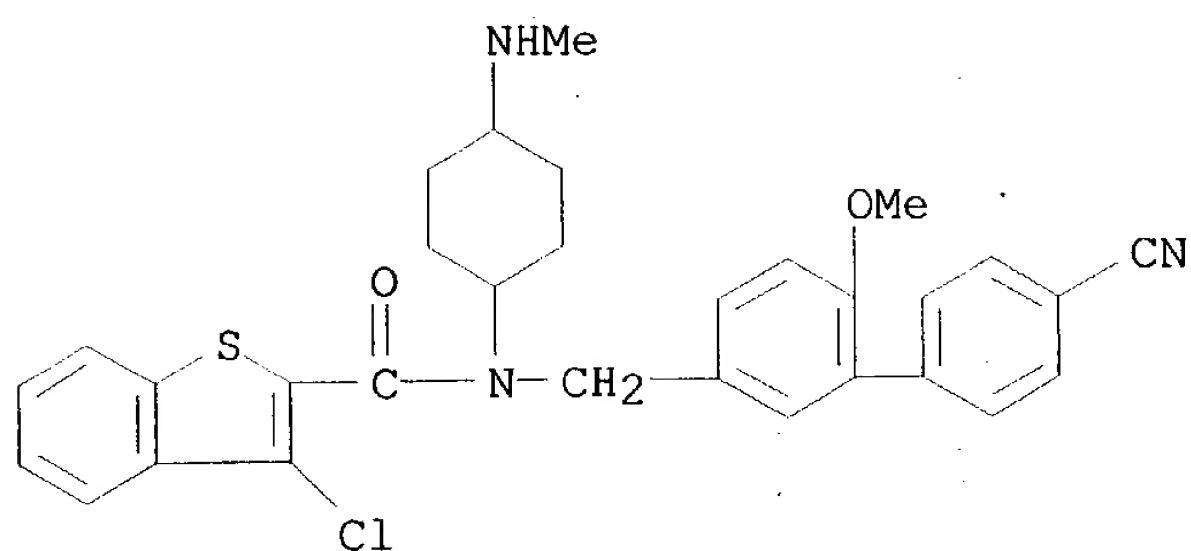
IT **364590-54-5P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of substituted benzothiophenes as regulators of cell proliferation)

RN 364590-54-5 HCAPLUS

CN Benzo[b]thiophene-2-carboxamide, 3-chloro-N-[(4'-cyano-6-methoxy[1,1'-biphenyl]-3-yl)methyl]-N-[4-(methylamino)cyclohexyl]- (9CI) (CA INDEX NAME)



L20 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:93513 HCAPLUS

DOCUMENT NUMBER: 139:301950

TITLE: Small-molecule modulators of **Hedgehog** signaling: identification and characterization of **Smoothed agonists and antagonists**

AUTHOR(S): Frank-Kamenetsky, Maria; Zhang, Xiaoyan M.; Bottega, Steve; Guicherit, Oivin; Wichterle, Hynek; Dudek, Henryk; Bumcrot, David; Wang, Frank Y.; Jones, Simon; Shulok, Janine; Rubin, Lee L.; Porter, Jeffery A.

CORPORATE SOURCE: Curis, Inc., Cambridge, MA, 02138, USA

SOURCE: Journal of Biology (London, United Kingdom) (2002), 1(2), No pp. given

CODEN: JBOIAW; ISSN: 1475-4924

URL: <http://jbiol.com/content/1/2/10>

PUBLISHER: BioMed Central Ltd.

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

AB The **Hedgehog** (Hh) signaling pathway is vital to animal development as it mediates the differentiation of multiple cell types during embryogenesis. In adults, Hh signaling can be activated to facilitate tissue maintenance and repair. Moreover, stimulation of the Hh pathway has shown therapeutic efficacy in models of neuropathy. The underlying mechanisms of Hh signal transduction remain obscure, however: little is known about the communication between the pathway suppressor Patched (Ptc), a multipass transmembrane protein that directly binds Hh, and the pathway activator Smoothed (Smo), a protein that is related to G-protein-coupled receptors and is capable of constitutive activation in the absence of Ptc. We have identified and characterized a synthetic non-peptidyl small mol., Hh-Ag, that acts as an **agonist** of the Hh pathway. This Hh **agonist** promotes cell-type-specific proliferation and concentration-dependent differentiation in vitro, while in utero it rescues aspects of the Hh-signaling defect in Sonic **hedgehog**-null, but not Smo-null, mouse embryos. Biochem. studies with Hh-Ag, the Hh-signaling **antagonist** cyclopamine, and a novel Hh-signaling inhibitor Cur61414, reveal that the action of all these compds. is independent of Hh-protein ligand and of the Hh receptor Ptc, as each binds directly to Smo. Thus, Smo can have its activity modulated directly by synthetic small mols. These studies raise the possibility that Hh signaling may be regulated by endogenous small mols. in vivo and provide potent compds. with which to test the therapeutic value of activating the Hh-signaling pathway in the treatment of traumatic and chronic degenerative conditions.

IT 364590-54-5, Hh-Ag 1.2

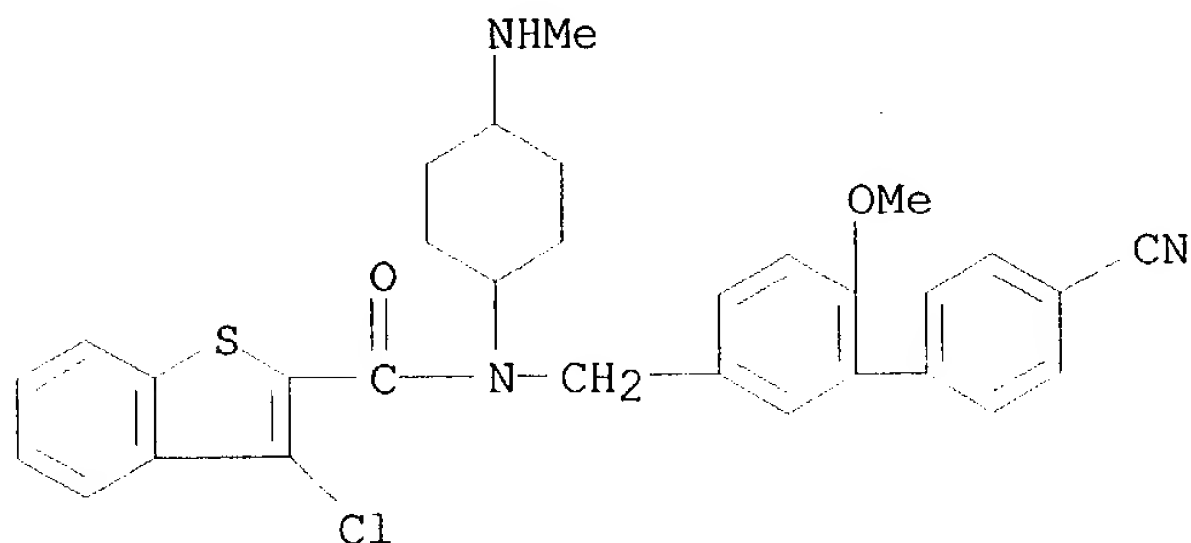
RL: BSU (Biological study, unclassified); DMA (Drug mechanism of action);

PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(agonist; identification and characterization of Smoothened agonists and antagonists as small-mol. modulators of Hedgehog signaling)

RN 364590-54-5 HCAPLUS

CN Benzo[b]thiophene-2-carboxamide, 3-chloro-N-[(4'-cyano-6-methoxy[1,1'-biphenyl]-3-yl)methyl]-N-[4-(methylamino)cyclohexyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:978471 HCAPLUS

DOCUMENT NUMBER: 138:39182

TITLE: Preparation of substituted benzothiophene derivatives as **hedgehog agonists** and regulators of cell proliferation and differentiation

INVENTOR(S): Baxter, Anthony David; Boyd, Edward Andrew; Guicherit, Oivin M.; Porter, Jeffery; Price, Stephen; Rubin, Lee; Stibbard, John Harry Alexander

PATENT ASSIGNEE(S): Curis, Inc., UK

SOURCE: U.S. Pat. Appl. Publ., 130 pp., Cont.-in-part of U.S. Ser. No. 724,492.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

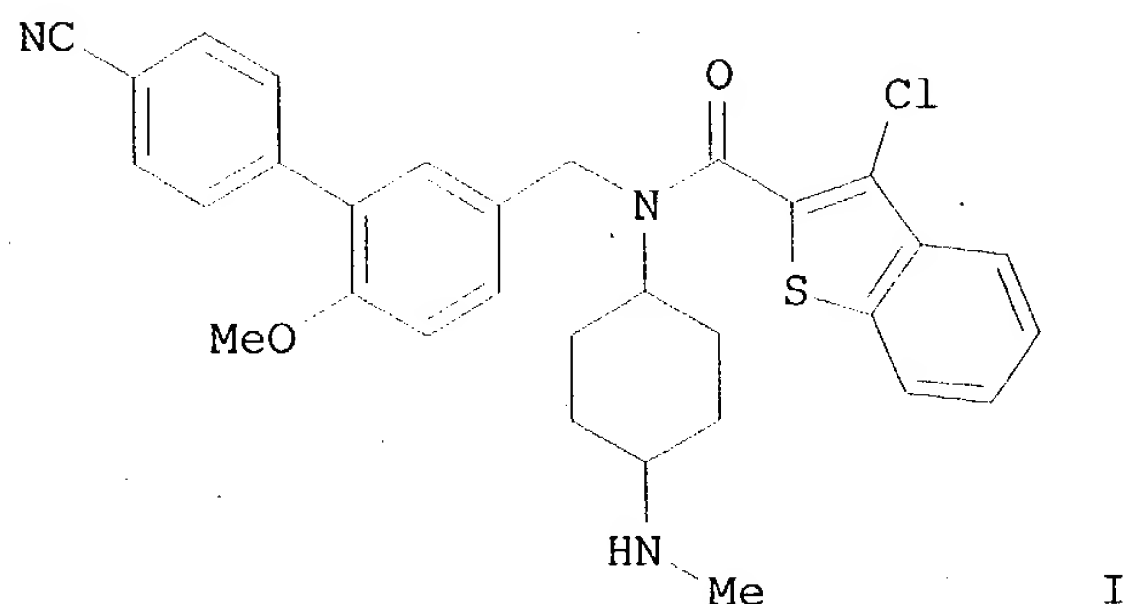
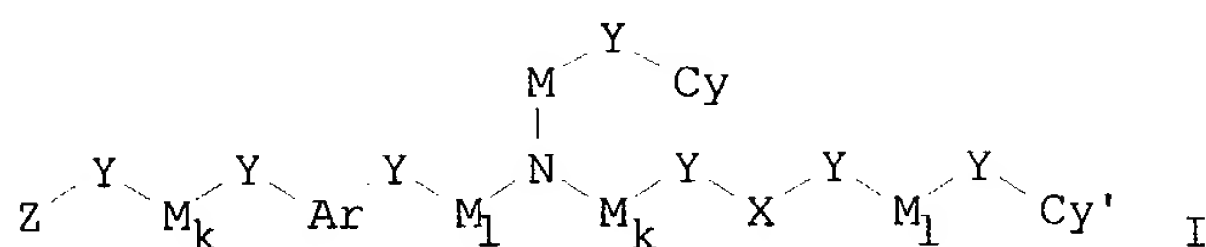
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002198236	A1	20021226	US 2001-964276	20010926
US 6683192	B2	20040127		
US 6683108	B1	20040127	US 2000-724492	20001128
US 2003139457	A1	20030724	US 2002-245844	20020917
WO 2003027234	A2	20030403	WO 2002-US29522	20020918
WO 2003027234	A3	20031218		
WO 2003027234	C2	20040219		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,

PRIORITY APPLN. INFO.:

US	2000-193279P	P	20000330
US	2000-724492	A2	20001128
WO	2001-US10296	A2	20010330
US	2001-964276	A2	20010926

OTHER SOURCE(S): MARPAT 138:39182  
GI



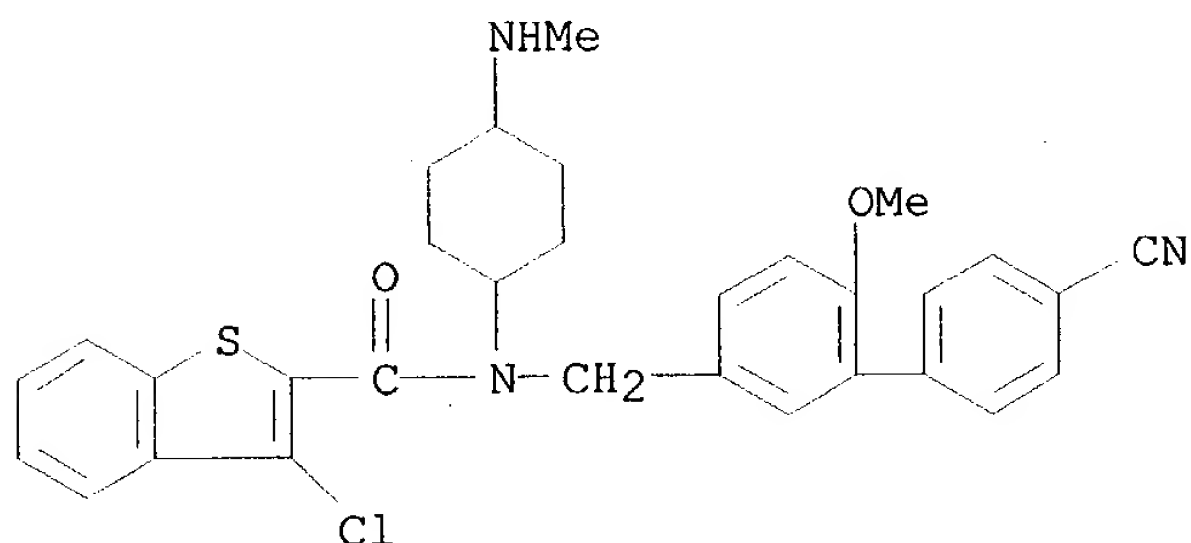
AB Title compds. I [Ar = (hetero)aryl; X = CO, CS, SO<sub>2</sub>, SO, CH<sub>2</sub>; Y = absent; Z = absent, aryl, carbocyclyl, heterocyclyl, etc.; M = (un)substituted methylene, etc.; Cy = aryl, heterocyclyl, heteroaryl, cycloalkyl; Cy' = 3-chlorobenzo[b]thiophen-2-yl, 3-fluorobenzo[b]thiophen-2-yl, etc.] are prepared For instance, N-(4-aminocyclohexyl)-N-methylcarbamic acid tert-Bu ester (preparation given) was alkylated with 5'-formyl-2'-methoxy-[1,1'-Biphenyl]-4-carbonitrile (MeO<sub>3</sub>CH, NaBH(OAc)<sub>3</sub>) and the resulting adduct acylated with 3-chlorobenzo[b]thiophene-2-carbonyl chloride and finally deprotected to give II, which was isolated as the hydrochloride. Methods and reagents are provided for modulating proliferation or differentiation in a cell or tissue, comprising contacting the cell with a **hedgehog agonist**. I are used to correct or inhibit an aberrant or unwanted growth state, e.g., by antagonizing a normal ptc pathway or agonizing smoothened or **hedgehog** activity.

IT 364590-54-5P, Benzo[b]thiophene-2-carboxamide,  
3-chloro-N-[(4'-cyano-6-methoxy[1,1'-biphenyl]-3-yl)methyl]-N-[4-  
(methylamino)cyclohexyl]-  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)

(hedgehog small organic mol. **agonists** as regulators of

cell proliferation and differentiation)

RN 364590-54-5 HCAPLUS  
 CN Benzo[b]thiophene-2-carboxamide, 3-chloro-N-[(4'-cyano-6-methoxy[1,1'-biphenyl]-3-yl)methyl]-N-[4-(methylamino)cyclohexyl]- (9CI) (CA INDEX NAME)



L20 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:747593 HCAPLUS

DOCUMENT NUMBER: 135:283224

TITLE: Small organic molecule **hedgehog agonists** as regulators of cell proliferation and differentiation

INVENTOR(S): Baxter, Anthony David; Boyd, Edward Andrew; Guicherit, Oivin M.; Porter, Jeffrey; Price, Stephen; Rubin, Lee E.

PATENT ASSIGNEE(S): Curis, Inc., USA

SOURCE: PCT Int. Appl., 246 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

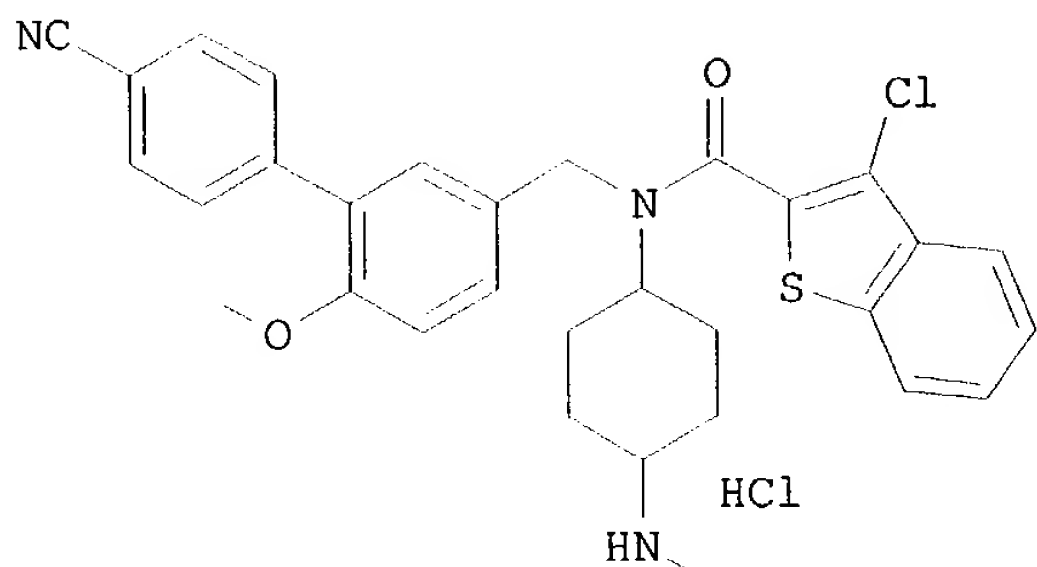
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WO 2001074344	A2	20011011	WO 2001-US10296	20010330
WO 2001074344	A3	20020523		
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6613798	B1	20030902	US 2000-724955	20001128
US 6683108	B1	20040127	US 2000-724492	20001128
EP 1272168	A2	20030108	EP 2001-922914	20010330
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2003535822	T2	20031202	JP 2001-572089	20010330
US 2003139457	A1	20030724	US 2002-245844	20020917
PRIORITY APPLN. INFO.:			US 2000-193279P P	20000330
			US 2000-724492 A	20001128



US 2000-724955 A 20001128  
 WO 2001-US10296 W 20010330  
 US 2001-964276 A2 20010926

OTHER SOURCE(S):  
 GI

MARPAT 135:283224



I

AB Methods and reagents are provided for modulating proliferation or differentiation in a cell or tissue, comprising contacting the cell with a **hedgehog agonist**. In certain embodiments, the methods and reagents may be employed to correct or inhibit an aberrant or unwanted growth state, e.g., by antagonizing a normal ptc pathway or agonizing smoothened or **hedgehog** activity. Preparation of compds. (e.g. I) is described.

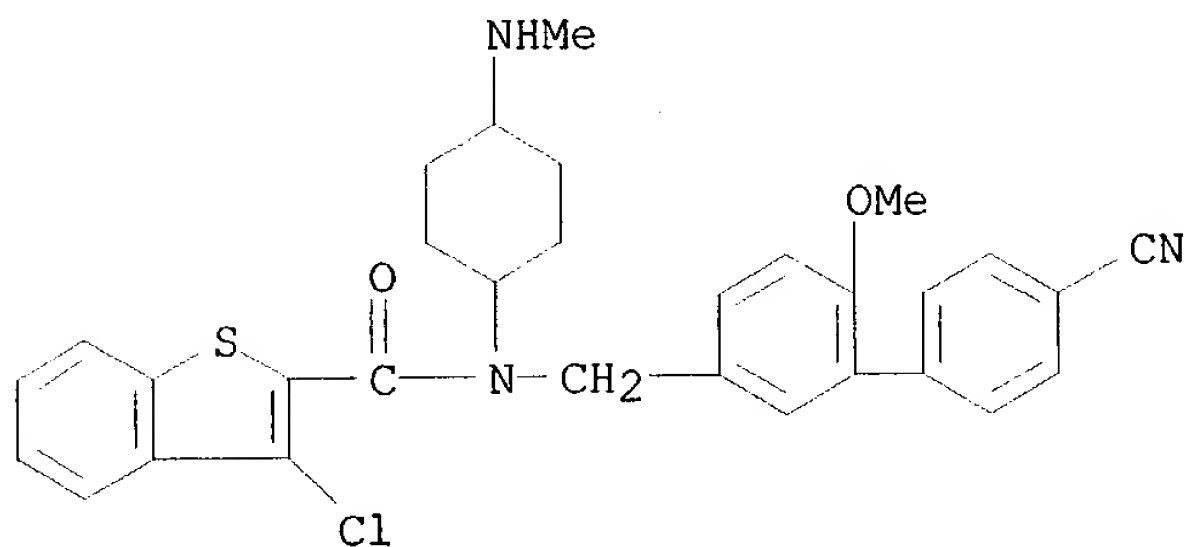
IT 364590-54-5

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**hedgehog** small organic mol. **agonists** as regulators of cell proliferation and differentiation)

RN 364590-54-5 HCAPLUS

CN Benzo[b]thiophene-2-carboxamide, 3-chloro-N-[(4'-cyano-6-methoxy[1,1'-biphenyl]-3-yl)methyl]-N-[4-(methylamino)cyclohexyl]- (9CI) (CA INDEX NAME)



=&gt; d ibib abs hitstr ind 16 1-1

L6 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2001:935644 HCAPLUS  
DOCUMENT NUMBER: 136:64122  
TITLE: Hedgehog protein as angiogenesis-modulator and  
therapeutic uses thereof  
INVENTOR(S): **Ling, Leona E.; Sanicola-Nadel,  
Michele**  
PATENT ASSIGNEE(S): Biogen, Inc., USA  
SOURCE: PCT Int. Appl., 269 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 4  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001098344	A2	20011227	WO 2001-US19435	20010618
WO 2001098344	A3	20021017		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6552016	B1	20030422	US 2000-688018	20001013
US 2003022819	A1	20030130	US 2001-883848	20010618
EP 1294752	A2	20030326	EP 2001-942213	20010618
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2004501163	T2	20040115	JP 2002-504299	20010618
US 2004023949	A1	20040205	US 2003-407551	20030404
PRIORITY APPLN. INFO.:			US 2000-211919P	P 20000616
			US 1999-159417P	P 19991014
			US 2000-196543P	P 20000411
			US 2000-240536P	P 20001013
			US 2000-688018	A3 20001013
			WO 2001-US19435	W 20010618

OTHER SOURCE(S): MARPAT 136:64122

AB The invention provides protein and cDNA sequences of sonic, indian, desert and tiggie-winkle hedgehog proteins from mouse chicken zebrafish human Drosophila. The present invention relates to the use of hedgehog protein, DNA, or other hedgehog therapeutic as an agent to induce the growth of new blood vessels, angiogenesis, arteriogenesis or vascular growth in adult tissues where the induction of angiogenesis has therapeutic value. The present invention also relates to the use of inhibitors of hedgehog protein or signaling to prevent angiogenesis contributing to pathol. conditions such as neoplasia (tumors and gliomas), diabetic retinopathy, rheumatoid arthritis, osteoarthritis, macular degeneration, psoriasis, ulcerative colitis, Crohn's disease, and inflammation. Hedgehog agonists and antagonists can be used to regulate angiogenesis, and have utility in treating tissue repair and cancer, and to prevent angiogenesis driven pathologies.

IT 383440-21-9 383440-22-0, Hedgehog protein, desert (mouse) 383440-23-1, Hedgehog protein, indian (mouse)

383440-24-2, Hedgehog protein, sonic (mouse) 383440-25-3  
, Hedgehog protein, sonic (Danio rerio) 383440-26-4, Hedgehog  
protein, sonic (human) 383440-27-5, Hedgehog protein, indian  
(human) 383440-28-6, Hedgehog protein, desert (human)  
383440-29-7 383440-31-1, Hedgehog protein (Drosophila)  
384381-47-9, Hedgehog protein (synthetic)

RL: BSU (Biological study, unclassified); PRP (Properties); THU  
(Therapeutic use); BIOL (Biological study); USES (Uses)  
(amino acid sequence; hedgehog protein as angiogenesis-modulator and  
therapeutic uses thereof)

RN 383440-21-9 HCAPLUS

CN Hedgehog protein, sonic (Gallus domesticus) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-22-0 HCAPLUS

CN Hedgehog protein, desert (mouse) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-23-1 HCAPLUS

CN Hedgehog protein, indian (mouse) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-24-2 HCAPLUS

CN Hedgehog protein, sonic (mouse) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-25-3 HCAPLUS

CN Hedgehog protein, sonic (Danio rerio) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-26-4 HCAPLUS

CN Hedgehog protein, sonic (human) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-27-5 HCAPLUS

CN Hedgehog protein, indian (human) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-28-6 HCAPLUS

CN Hedgehog protein, desert (human) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-29-7 HCAPLUS

CN Hedgehog protein, tiggie-winkle (Danio rerio) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-31-1 HCAPLUS

CN Hedgehog protein (Drosophila) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 384381-47-9 HCAPLUS

CN Hedgehog protein (synthetic) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 106096-93-9, FGF2 127464-60-2, Vascular endothelial  
growth factor 186270-49-5, Angiopoietin 1 194368-66-6,  
Angiopoietin 2

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(hedgehog agonists; hedgehog protein as angiogenesis-modulator and  
therapeutic uses thereof)

RN 106096-93-9 HCAPLUS  
 CN Fibroblast growth factor, basic (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 127464-60-2 HCAPLUS  
 CN Vascular endothelial growth factor (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 186270-49-5 HCAPLUS  
 CN Angiopoietin 1 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 194368-66-6 HCAPLUS  
 CN Angiopoietin 2 (9CI) (CA INDEX NAME)

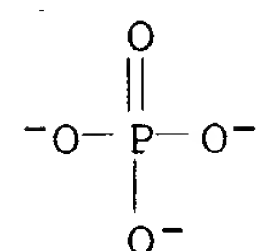
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 9001-78-9, Alkaline phosphatase 14265-44-2, Phosphate,  
 biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (hedgehog protein as angiogenesis-modulator and therapeutic uses  
 thereof)

RN 9001-78-9 HCAPLUS  
 CN Phosphatase, alkaline (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 14265-44-2 HCAPLUS  
 CN Phosphate (8CI, 9CI) (CA INDEX NAME)



IT 383440-12-8 383440-13-9, DNA (mouse desert hedgehog  
 protein cDNA) 383440-14-0, DNA (mouse indian hedgehog protein  
 cDNA) 383440-15-1, DNA (mouse sonic hedgehog protein cDNA)  
 383440-16-2 383440-17-3, DNA (human sonic hedgehog  
 protein cDNA) 383440-18-4, DNA (human indian hedgehog protein  
 cDNA) 383440-19-5, DNA (human desert hedgehog protein cDNA)  
 383440-20-8 383440-30-0, DNA (Drosophila hedgehog  
 protein cDNA)  
 RL: BSU (Biological study, unclassified); PRP (Properties); THU  
 (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (nucleotide sequence; hedgehog protein as angiogenesis-modulator and  
 therapeutic uses thereof)

RN 383440-12-8 HCAPLUS  
 CN DNA (Gallus domesticus sonic hedgehog protein cDNA) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-13-9 HCAPLUS  
 CN DNA (mouse desert hedgehog protein cDNA) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-14-0 HCAPLUS  
 CN DNA (mouse indian hedgehog protein cDNA) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-15-1 HCAPLUS  
CN DNA (mouse sonic hedgehog protein cDNA) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-16-2 HCAPLUS  
CN DNA (Danio rerio sonic hedgehog protein cDNA) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-17-3 HCAPLUS  
CN DNA (human sonic hedgehog protein cDNA) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-18-4 HCAPLUS  
CN DNA (human indian hedgehog protein cDNA) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-19-5 HCAPLUS  
CN DNA (human desert hedgehog protein cDNA) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-20-8 HCAPLUS  
CN DNA (Danio rerio tiggie-winkle hedgehog protein cDNA) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383440-30-0 HCAPLUS  
CN DNA (Drosophila hedgehog protein cDNA) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 383451-66-9 383451-67-0 383451-68-1  
383451-69-2 383451-70-5 383451-71-6  
383451-72-7 383451-73-8 383451-74-9  
383451-75-0 383451-76-1 383451-77-2  
383451-78-3 383451-79-4 383451-80-7  
383451-81-8 383451-82-9 383451-83-0  
383451-84-1 383451-85-2 383451-86-3  
383453-23-4 383453-24-5 383453-25-6  
RL: PRP (Properties)  
(unclaimed nucleotide sequence; hedgehog protein as  
angiogenesis-modulator and therapeutic uses thereof)

RN 383451-66-9 HCAPLUS  
CN 35: PN: WO0198344 SEQID: 27 unclaimed DNA (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-67-0 HCAPLUS  
CN 36: PN: WO0198344 SEQID: 28 unclaimed DNA (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-68-1 HCAPLUS  
CN 37: PN: WO0198344 SEQID: 29 unclaimed DNA (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-69-2 HCAPLUS  
CN 38: PN: WO0198344 SEQID: 30 unclaimed DNA (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-70-5 HCAPLUS  
CN 39: PN: WO0198344 SEQID: 31 unclaimed DNA (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-71-6 HCAPLUS  
CN 40: PN: WO0198344 SEQID: 32 unclaimed DNA (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-72-7 HCAPLUS  
CN 41: PN: WO0198344 SEQID: 33 unclaimed DNA (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-73-8 HCAPLUS  
CN 42: PN: WO0198344 SEQID: 34 unclaimed DNA (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-74-9 HCAPLUS  
CN 43: PN: WO0198344 SEQID: 35 unclaimed DNA (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-75-0 HCAPLUS  
CN DNA, d(T-C-G-A-G-A-A-A-A-G-A-T-G-C-G-G-A-C-C-G-G-G-C-A-G-G-G-G-G-T) (9CI)  
(CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-76-1 HCAPLUS  
CN DNA, d(C-G-A-A-C-C-C-C-C-T-G-C-C-C-G-G-T-C-C-G-C-A-T-C-T-T-T-T-C) (9CI)  
(CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-77-2 HCAPLUS  
CN DNA, d(T-C-A-G-G-A-T-G-C-A-T-T-T-G-A-C-A-G-T-G-A-C-T-G-G) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-78-3 HCAPLUS  
CN DNA, d(A-C-T-C-C-G-A-G-T-C-G-G-A-G-G-A-A-T-C-A-G-A-C-C-C) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-79-4 HCAPLUS  
CN DNA, d(C-G-A-A-G-T-G-G-T-G-A-A-G-T-T-C-A-T-G-G-A-T-G) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-80-7 HCAPLUS  
CN DNA, d(T-T-C-T-G-T-A-T-C-A-G-T-C-T-T-T-C-C-T-G-G-T-G-A-G) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-81-8 HCAPLUS  
CN DNA, d(T-A-C-A-A-C-T-T-C-A-A-G-C-A-G-A-A-G-A-G) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-82-9 HCAPLUS  
CN DNA, d(C-A-G-C-T-C-T-T-A-G-C-A-G-A-C-A-T-T-G-G) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-83-0 HCAPLUS  
CN DNA, d(C-A-A-C-A-C-A-A-A-C-G-C-T-C-T-G-C-A-G-A-G-A-G-A) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-84-1 HCAPLUS

CN DNA, d(C-T-C-C-A-G-T-T-G-C-T-G-C-T-T-C-T-G-A-A-G-G-A-C) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-85-2 HCAPLUS

CN DNA, d(A-G-C-G-A-C-G-T-G-A-G-G-A-T-G-G-C-A-G-C-G-T-T) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-86-3 HCAPLUS

CN DNA, d(A-T-T-T-C-C-T-G-G-T-T-G-G-C-T-G-A-T-G-C-T-G-C-T-T) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383453-23-4 HCAPLUS

CN 46: PN: WO0198344 PAGE: 132/SEQID: 21 unclaimed DNA (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383453-24-5 HCAPLUS

CN 47: PN: WO0198344 PAGE: 133/SEQID: 22 unclaimed DNA (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383453-25-6 HCAPLUS

CN 48: PN: WO0198344 PAGE: 205-211/SEQID: 36 unclaimed DNA (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 383451-61-4 383451-62-5 383451-63-6  
383451-64-7 383451-65-8

RL: PRP (Properties)

(unclaimed protein sequence; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)

RN 383451-61-4 HCAPLUS

CN 21: PN: WO0198344 SEQID: 21 unclaimed protein (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-62-5 HCAPLUS

CN 22: PN: WO0198344 SEQID: 22 unclaimed protein (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-63-6 HCAPLUS

CN 49: PN: WO0198344 SEQID: 23 unclaimed protein (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-64-7 HCAPLUS

CN 50: PN: WO0198344 SEQID: 24 unclaimed protein (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 383451-65-8 HCAPLUS

CN 51: PN: WO0198344 SEQID: 25 unclaimed protein (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IC ICM C07K014-475

CC 1-8 (Pharmacology)

Section cross-reference(s): 3, 13

ST angiogenesis modulating hedgehog agonist antagonist sequence; mouse chicken zebrafish human Drosophila hedgehog protein sequence; sonic desert indian tiggie winkle hedgehog protein cDNA sequence

IT Animal cell line

(C3H/10T1/2; hedgehog protein as angiogenesis-modulator and therapeutic



- uses thereof)
- IT Intestine, disease  
(Crohn's, treatment of; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)
- IT Hedgehog protein  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(agonist or antagonist; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)
- IT Cardiovascular agents  
(angiogenesis; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)
- IT Proteins  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(desert hedgehog; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)
- IT Protein motifs  
(extracellular domain of hedgehog protein; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)
- IT Viral vectors  
(for expression hedgehog agonist; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)
- IT Antibodies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(fusion products, homolog; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)
- IT Hepatocyte growth factor  
Monocyte chemoattractant protein-1  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(hedgehog agonists; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)
- IT Acetyl group  
Antiarthritics  
Antirheumatic agents  
Antitumor agents  
Chicken (Gallus domesticus)  
Danio rerio  
Drosophila  
Gene therapy  
Human  
Mouse  
Protein sequences  
cDNA sequences  
(hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)
- IT Carbohydrates, biological studies  
Lipids, biological studies  
Receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)
- IT Angiogenic factors  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(hedgehog; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)



- IT Antibodies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(homolog; hedgehog protein as angiogenesis-modulator and therapeutic  
uses thereof)
- IT Antibodies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(humanized, homolog; hedgehog protein as angiogenesis-modulator and  
therapeutic uses thereof)
- IT Proteins  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP  
(Preparation); USES (Uses)  
(indian hedgehog; hedgehog protein as angiogenesis-modulator and  
therapeutic uses thereof)
- IT Eye, disease  
(macula, degeneration, treatment of; hedgehog protein as  
angiogenesis-modulator and therapeutic uses thereof)
- IT Angiogenesis  
(modulating; hedgehog protein as angiogenesis-modulator and therapeutic  
uses thereof)
- IT Glaucoma (disease)  
(neovascular, treatment of; hedgehog protein as angiogenesis-modulator  
and therapeutic uses thereof)
- IT Angiogenesis  
(neovascularization, hedgehog inducing; hedgehog protein as  
angiogenesis-modulator and therapeutic uses thereof)
- IT Polymers, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(polyalkylene glycol; hedgehog protein as angiogenesis-modulator and  
therapeutic uses thereof)
- IT Eye, disease  
(retinopathy, treatment of; hedgehog protein as angiogenesis-modulator  
and therapeutic uses thereof)
- IT Hedgehog protein  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP  
(Preparation); USES (Uses)  
(sonic; hedgehog protein as angiogenesis-modulator and therapeutic uses  
thereof)
- IT Proteins  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP  
(Preparation); USES (Uses)  
(tiggie-winkle hedgehog; hedgehog protein as angiogenesis-modulator and  
therapeutic uses thereof)
- IT Keloid  
Psoriasis  
(treatment of; hedgehog protein as angiogenesis-modulator and  
therapeutic uses thereof)
- IT Intestine, disease  
(ulcerative colitis, treatment of; hedgehog protein as  
angiogenesis-modulator and therapeutic uses thereof)
- IT 383440-21-9 383440-22-0, Hedgehog protein, desert  
(mouse) 383440-23-1, Hedgehog protein, indian (mouse)  
383440-24-2, Hedgehog protein, sonic (mouse) 383440-25-3  
, Hedgehog protein, sonic (Danio rerio) 383440-26-4, Hedgehog  
protein, sonic (human) 383440-27-5, Hedgehog protein, indian  
(human) 383440-28-6, Hedgehog protein, desert (human)  
383440-29-7 383440-31-1, Hedgehog protein (Drosophila)  
384381-47-9, Hedgehog protein (synthetic)

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(amino acid sequence; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)

IT 106096-93-9, FGF2 127464-60-2, Vascular endothelial growth factor 186270-49-5, Angiopoietin 1 194368-66-6, Angiopoietin 2

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(hedgehog agonists; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)

IT 9001-78-9, Alkaline phosphatase 14265-44-2, Phosphate, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)

IT 383440-12-8 383440-13-9, DNA (mouse desert hedgehog protein cDNA) 383440-14-0, DNA (mouse indian hedgehog protein cDNA) 383440-15-1, DNA (mouse sonic hedgehog protein cDNA) 383440-16-2 383440-17-3, DNA (human sonic hedgehog protein cDNA) 383440-18-4, DNA (human indian hedgehog protein cDNA) 383440-19-5, DNA (human desert hedgehog protein cDNA) 383440-20-8 383440-30-0, DNA (Drosophila hedgehog protein cDNA)

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(nucleotide sequence; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)

IT 383451-66-9 383451-67-0 383451-68-1  
383451-69-2 383451-70-5 383451-71-6  
383451-72-7 383451-73-8 383451-74-9  
383451-75-0 383451-76-1 383451-77-2  
383451-78-3 383451-79-4 383451-80-7  
383451-81-8 383451-82-9 383451-83-0  
383451-84-1 383451-85-2 383451-86-3  
383453-23-4 383453-24-5 383453-25-6

RL: PRP (Properties)  
(unclaimed nucleotide sequence; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)

IT 383451-61-4 383451-62-5 383451-63-6  
383451-64-7 383451-65-8

RL: PRP (Properties)  
(unclaimed protein sequence; hedgehog protein as angiogenesis-modulator and therapeutic uses thereof)

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